UNIVERSITY OF LEEDS

# CANDIDATE BRIEF

## Correlative Imaging Scientist, Faculty of Biological Sciences

**Salary: Grade 7 (£41,064 - £48,822 p.a.)**

**Reference: FBSAS1083**

**Available on a full-time, fixed-term basis until 31 July 2030 (to complete specific time limited work)**

**This role will be based on the university campus**

**We are also open to discussing flexible working arrangements**

# Correlative Imaging Scientist
# School of Molecular and Cellular Biology

**Are you a creative postdoctoral-scientist keen to explore novel *in-situ* biology with cryogenic electron tomography? Do you have a background in imaging technologies and/or image processing?**

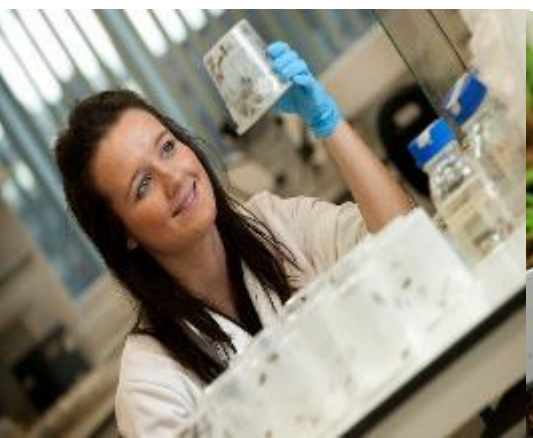
We are looking for a correlative imaging scientist to develop, innovate, and support *in-situ* structural biology workflows working across the Cheney Biomedical Accelerator and Astbury Biostructure Laboratory. Primarily, this role will support projects using (cryo) FIB-SEM, (cryo) confocal, and (cryo) TEM workflows to prepare organisms, tissues, and cells for cryogenic electron tomography.

Day to day, the role will involve working with multiple projects, training and assisting users, and working as part of the EM facilities team to maintain equipment and provide expert support and advice for both internal and external academics. You will be part of a supportive environment and be self-driven to further your own professional development whilst mentoring others. In addition, you will work collaboratively with the wider FBS facilities, specifically the Bio-imaging facility to support a cryo-CLEM user base.

The Astbury Biostructure Laboratory electron microscopy facility is a centre of excellence for structural biology, with expertise in both single particle cryoEM and tomography, and state of the art equipment:

- 2x Titan Krios microscopes (each with Falcon 4i and selectris)
- A Talos L120C TEM
- A Hydra Bio plasma FIB-SEM
- A UC7 cryo-ultramicrotome
- An EM ICE high pressure freezer
- A Leica EM GP plunge freezer
- A cryo confocal fluorescent microscope

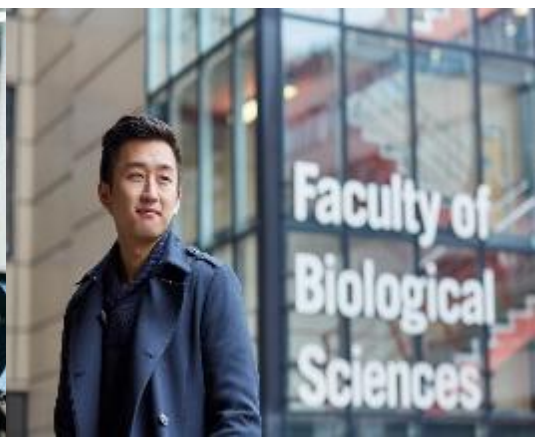
You should have a PhD, significant experience with cutting edge imaging technologies, and a passion for studying biochemical processes. You should be motivated to work with many different imaging technologies, bringing experience in either cryoEM or fluorescent imaging, or both.



## Main duties and responsibilities

- Developing and leading correlative imaging workflows for in situ structural biology, focusing on cryo-fluorescence and cryo-electron tomography.
- Responsibility for maintaining equipment relevant to correlative pipelines.
- Taking the lead in assisting users with preparation of biological samples for electron microscopy, including high pressure freezing, plunge freezing, (cryo-) confocal LM, ultramicrotomy, and/or (cryo-) FIB-SEM.
- Training and assisting users with acquiring (cryo-) fluorescent data for correlative workflows, primarily to guide downstream electron microscopy data collection.
- Playing a principal role in supporting cryo-electron tomography acquisition, and downstream tomography processing, and sub-tomogram averaging.
- Liaising and collaborating with IT to make latest software developments for tomography processing available for users to access and assisting with the management and implementation of EM software including appropriate documentation and training resources.
- Optimising correlative pipelines, and where appropriate to incorporate new technologies (soft X-ray, MRI, mass spectrometry) into correlative pipelines.
- Working with internal, external, and industry partners to consult on and deliver timely results for correlative light and electron tomography workflows.
- Building strong relationships within the correlative imaging community and keeping up to date with the latest advances in the field.
- Working closely and collaboratively with colleagues across FBS facilities to promote multi-disciplinary research and create a supportive environment for research technical professionals.
- Specifically working with colleagues in the Bio-imaging Facility to develop CLEM workflows, incorporate super-resolution imaging into projects, and so on.
- Working with colleagues to develop and deliver training workshops and resources.
- Contributing to funding opportunities, including grant applications, publications and presentations.
- Contributing to a world-class collaborative research environment, including mentoring junior researchers, training students, and maintaining your own continuing professional development.





These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

## Qualifications and skills

**Essential**

- A PhD, or other equivalent experience with a significant focus on novel imaging technologies.
- Experience handling and preparing biological samples for light and/or cryo-electron microscopy.
- Experience using light microscopy.
- Experience using cryo-electron tomography.
- Experience with image processing software and packages and the ability to rapidly adapt to new software.
- Self-motivation and drive to develop projects and innovations independently but also communicate and work as part of a team.
- Strong presentation and communication skills, with the ability to train others.
- Good organisational and management skills to cope with supporting multiple projects and users.

**Desirable**

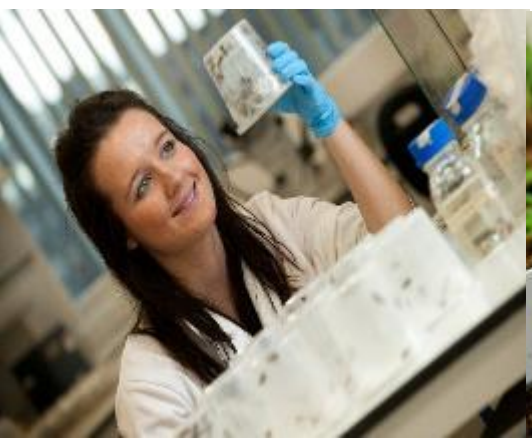
- Experience with cryo-FIB-SEM and/or cryo-microtomy.
- Experience with cryo-electron tomography image processing and/or sub-tomogram averaging.

## How to apply

You can apply for this role online; more guidance can be found on our How to Apply information page. Applications should be submitted by **23.59** (UK time) on the advertised closing date (FBSAS1083 Correlative Imaging Scientist - Jobs at the University of Leeds).

Your application should include:

- A supporting statement providing evidence to support each requirement listed on the 'What will you bring to the role' section of the Candidate Brief (no more than two sides of A4, minimum font size 11).



- An academic curriculum vitae, including a list of your publications.

## Contact information

To explore the post further or for any queries you may have, please contact:

Dr Tom O'Sullivan – Correlative Imaging Scientist
Email: t.j.osullivan@leeds.ac.uk

## Additional information

The University of Leeds and the Faculty of Biological Sciences are committed to providing equal opportunities for all and offer a range of family friendly policies. The University is a charter member of Athena SWAN (the national body that promotes gender equality in higher education), and the Faculty of Biological Sciences has recevied a prestigous Silver award. We are proud to be an inclusive Faculty that values all staff, and are happy to consider job share applications and requests for flexible working arrangements from our employees. Our Athena SWAN webpage provides more information.

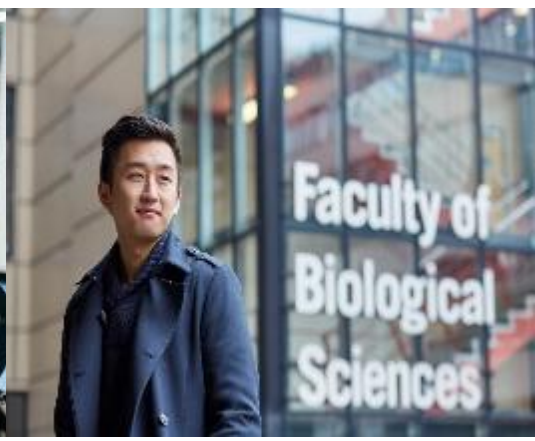
Find out more about the Faculty of Biological Sciences and the School of Molecular and Cellular Biology.

Find out more about our Research and associated facilities.

At the University of Leeds, we are committed to providing a culture of inclusion, respect and equity of opportunity that attracts, supports, and retains the best students and staff from all backgrounds and from across the world. Whatever role we recruit for we are always striving to increase the diversity of our community, which each individual helps enrich and cultivate. We particularly encourage applications from, but not limited to Black, Asian, people who belong to a minority ethnic community; people who identify as LGBT+; and disabled people. Candidates will always be selected based on merit and ability.

**Working at Leeds**
We are a campus-based community and regular interaction with campus is an expectation of all roles in line with academic and service needs and the requirements





of the role. We are also open to discussing flexible working arrangements. To find out more about the benefits of working at the University and what it is like to live and work in the Leeds area visit our Working at Leeds information page.

**Information for disabled candidates**
Information for disabled candidates, impairments or health conditions, including requesting alternative formats, can be found under the 'Accessibility' heading on our How to Apply information page or by getting in touch by emailing HR via hr@leeds.ac.uk.

## Criminal record information

**Rehabilitation of Offenders Act 1974**
A criminal record check is not required for this position. However, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be, in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our Criminal Records information page.

**Salary Requirements of the Skilled Worker Visa Route**

Please note that this post may be suitable for sponsorship under the Skilled Worker visa route but first-time applicants might need to qualify for salary concessions. For more information, please visit the Government's Skilled Worker visa page.

For research and academic posts, we will consider eligibility under the Global Talent visa. For more information, please visit the Government's page, Apply for the Global Talent visa.

*Please note: If you are not a British or Irish citizen, you will require permission to work in the UK. This will normally be in the form of a visa but, if you are an EEA/Swiss citizen, this may be your status under the EU Settlement Scheme.*